

WHAT IS CLAIMED IS:

1. A method of estimating noise in a digital image, comprising the steps of:
 - a) receiving a digital image;
 - b) providing a first statistical table related to noise provided by an image source;
 - c) using the pixels of the digital image to calculate a second statistical table related to the noise provided by the image source in capturing the image;
 - d) using the first statistical table and the second statistical table to provide an updated third statistical table related to the noise provided by the image source in capturing the image; and
 - e) calculating a noise characteristic table from the third statistical table for use in enhancing the digital image.
2. The method of claim 1 wherein the first statistical table is either an initial default statistical table or an updated third statistical table.
3. The method of claim 2 wherein the initial default statistical table relates to a noise estimate of that noise which will be provided by the image source in capturing the image.
4. The method of claim 1 wherein the first, second, and third statistical tables each include a series of standard deviation values for different ranges of intensities provided by the captured image source.
5. The method of claim 1, wherein the first, second, and third statistical tables each include at least one histogram.
6. The method of claim 1 wherein the first, second, and third statistical tables each include a series of histograms for different ranges of intensities provided by the captured image source.
7. The method of claim 4 wherein the standard deviation values of the third statistical table are used in calculating the noise characteristic for enhancing the digital image.

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8. The method of claim 4 wherein the noise characteristic is used in processing the digital image for enhancing such digital image.

9. The method claimed in claim 8, wherein a spatial filter is used to calculate the enhanced digital image.

10. The method claimed in claim 8, further including the step of using the noise characteristic table and a noise reduction filter to calculate an enhanced digital image.

11. The method claimed in claim 8, further including the step of using noise characteristic table and a spatial sharpening filter to calculate an enhanced digital image.

12. The method claimed in claim 8, further including the step of using noise characteristic table, a noise reduction filter and a spatial sharpening filter to calculate an enhanced digital image.

13. A method of estimating noise in a photographic image, comprising the steps of:

a) receiving a digital image corresponding to the photographic image and a source identification tag corresponding to the photographic image capture source;

b) providing a first statistical table related to noise provided by a photographic image source;

c) using the pixels of the digital image to calculate a second statistical table related to the noise provided by the photographic image source;

d) using the first statistical table and the second statistical table to provide an updated third statistical table related to the noise provided by the photographic image source; and

e) calculating a noise characteristic table related to the noise provided by the photographic image source from the third statistical table for use in enhancing the digital image.

14. The method of claim 13 wherein the first statistical table is either an initial default statistical table or an updated third statistical table.

15. The method of claim 14 wherein the initial default statistical table relates to a noise estimate of that noise which will be provided by the image source in capturing the image.

16. The method of claim 13 wherein the first, second, and third statistical tables each include a series of standard deviation values for different ranges of intensities provided by the captured image source.

17. The method of claim 13, wherein the first, second, and third statistical tables each include at least one histogram.

18. The method of claim 13 wherein the first, second, and third statistical tables each include a series of histograms for different ranges of intensities provided by the captured image source.

19. The method of claim 17 wherein the standard deviation values of the third statistical table are used in calculating the noise characteristic for enhancing the digital image.

20. The method of claim 17 wherein the noise characteristic is used in processing the digital image for enhancing such digital image.

21. The method claimed in claim 20, wherein a spatial filter is used to calculate the enhanced digital image.

22. The method claimed in claim 20, further including the step of using the noise characteristic table and a noise reduction filter to calculate an enhanced digital image.

23. The method claimed in claim 20, further including the step of using noise characteristic table and a spatial sharpening filter to calculate an enhanced digital image.

24. The method claimed in claim 20, further including the step of using noise characteristic table, a noise reduction filter and a spatial sharpening filter to calculate an enhanced digital image.

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